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PLANTAE COLOMBIANAE XII
DE PLANTIS PRINCIPALITER AMAZONIAE COLOMBIANAE INVESTIGATIONES

BY

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THE Amazonia of Colombia, vast and, for the most part, still unknown, has a surprisingly varied flora. Botanical explorations of this northwesternmost part of the great Amazon Valley have been pitifully few in relation to the size of the area and the wealth of its flora. Colombia's Amazon region is divided into the Comisarías of the Putumayo, Caquetá, Amazonas and Vaupés. It comprises about 404,000 square kilometers or one-third the area of the entire country. It is at once obvious how vital to our understanding of the flora of the rest of Colombia, as well as of the whole Amazon basin, is a clear conception of the phytogeographical relationships of the vegetation of this immense area.

In the course of identifying recent collections from the Colombian Amazonia, I have found that a number of these represent hitherto apparently undescribed concepts or concepts previously unknown either from Colombia or from its Amazonian regions. It seems advisable to publish, from time to time, collected notes of this type

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as a contribution towards our understanding of the flora of Colombia.

I wish to thank the following botanists for their collaboration: Dr. José Cuatrecasas of the Chicago Museum, who has studied the representatives of *Cecropia* and *Quararibea;* Dr. Robert E. Woodson of the Missouri Botanical Garden, who identified the apocynaceous species; Padre Lorenzo Uribe of Medellín and Bogotá, Colombia, who determined the specimens of *Inga;* Dr. B. A. Krukoff and Mr. Joseph Monachino who have attended to the collections of *Strychnos;* and Dr. F. A. Stafleu of Proefstation voor de Java Suikerindustrie, Pasoeroean, Java, who identified the representatives of *Vochysia.* I have also to thank Dr. Frederick J. Hermann of the United States Department of Agriculture for placing at my disposal the notes and identified plant specimens which he collected, some for the first time in Colombian territory, in the Leticia area in 1944.

Cyperaceae

Fimbristylis miliacea (*L.*) *Vahl* Enum. 2 (1805) 287.

Collections of *Fimbristylis miliacea* have been made in British and Dutch Guiana, Venezuela and Ecuador. *Hermann 11318* represents apparently the first collection to be reported from Amazonian Colombia.

Colombia: Intendencia del Amazonas, Leticia, April, 1944, *Frederick J. Hermann 11318.*

Araceae

Pistia Stratiotes *Linnaeus* Sp. Pl. (1753) 963.

This very widespread tropical American plant is known from almost all parts of Middle and South America. Although collections have been made from nearly every other district of Colombia, *Hermann 11301* would seem

to be the first reported from the Amazon watershed of the Republic.

COLOMBIA: Intendencia del Amazonas, Río Loretoyacu, floating on the river near its mouth, April, 1944, *Frederick J. Hermann 11301*.

LEMNACEAE

Lemna valdiviana *Philippi* in Linnaea 33 (1864) 239.

The collections cited below seem to be the first of this minute floating plant from the Amazon watershed of Colombia and adjacent Peru.

COLOMBIA: Intendencia del Amazonas, Río Hamacayacu, April, 1944, *Frederick J. Hermann 11312*.

PERU: Departamento de Loreto, Río Amazonas, Isla Cacao, April, 1944, *Frederick J. Hermann 11313*.

Spirodela polyrrhiza (*L.*) *Schleiden* in Linnaea 13 (1839) 392.

This interesting little aquatic plant has apparently never before been collected in the Colombian Amazon watershed. It has been known from Boyacá and Santa Marta in Colombia and from Guayas Province in Ecuador and Loreto in Peru.

COLOMBIA: Intendencia del Amazonas, Leticia, April, 1944, *Frederick J. Hermann 11315*.

VELLOZIACEAE

Vellozia phantasmagoria *R. E. Schultes* in Bot. Mus. Leafl. Harvard Univ. 12 (1946) 130, pl. 19, 20.

A specimen of *Cuatrecasas 7700* has recently come to my attention during studies in the United States National Herbarium. It would appear to represent *Vellozia phantasmagoria*, a dominant shrub on Mount Chiribiquete which is located slightly southeast of San José del Guaviare and which has a number of floral elements in common with the granitic hill at San José. The sterile

condition of the specimen, however, precludes definite identification. Nevertheless, it represents the northwesternmost collection of the *Velloziaceae* from the Amazon Valley and from South America.

COLOMBIA: Intendencia del Meta, Río Guaviare, San José del Guaviare, terrenos graníticos, sabana, alt. 270 m. "Ramificada, 1–2 m. alt." December 11, 1939, *J. Cuatrecasas 7700*.

MORACEAE

Cecropia mocoana *Cuatrecasas sp. nov.*

Arbor parva. Ramuli scabri, pilis conicis rigidis inclinatis et pilis longioribus hamatis praediti. Folia ampla, membranacea, peltata, longe petiolata. Petiolus robustus, 50 cm. longus, striatus, copiose hirsutus cum pilis longis saepe hamatis. Lamina palmata, profunde (3/4–4/5) 8-lobata; lobis majoribus obovato-oblongis, minoribus obovato-subrotundatis, omnibus abrupte acuminatis, basi contractis, margine integra vel leviter irregulariterque sinuata, lobo maximo ab insertione petioli usque ad apicem 54 cm. longo et 30 cm. lato, lobo minimo 24 cm. longo, 15 cm. lato, parte concrescenti 10–19 cm; supra viridis, strigosa, pilis conicis brevibus et pilis longis acutissimis inclinatis munita, nervis principalibus et secundariis notata; subtus albida, nervis primariis crasso-eminentibus valde hirsutis, secundariis angulo obtuso 1–3.5 cm. distantibus prominentibus hirsutulis, tertiis roseis transversalibus et reticulatis demum hirsutulis, inter hos lamina dense albo-arachnoideo-tomentosa. Inflorescentiae masculae geminatae. Pedunculus rigidus, mediocris, 6.5–7 cm. longus, strigosus, pilis hamatis acutis satis armatus. Spatha ovoideo-oblonga, acutiuscula, circa 13 cm. longa, extus villoso-hirsuta, intus puberula. Amenta masculina circa 28 fasciculata, graciliter pedicellata, praefloratione 7–10 cm. longa, postea usque ad 17 cm. longa, 3 mm. lata. Perigonium tubulosum, 2

mm. longum, glabrum vel apice setis parcissimis minutis donatum. Pedicelli subcapillares, 12–20 mm. longi, dense scabro-hirsutuli, pilis hamatis instructi.

Dr. Cuatrecasas writes: "*Cecropia mocoana* is closely related to *C. marginalis* Cuatr. and *C. discolor* Cuatr. From both, it differs in having leaves which are a little thinner and more abundantly pubescent on the upper surface and in having more conspicuous scales (small conic hairs) which cause the leaves to be rough. The leaves on the under surface are more like those of *C. marginalis* because of the nerves and venation which are more or less hirtose and not covered with arachnoideous tomentum; in *C. discolor* the arachnoideous tomentum is brightly white and covers the network. The spathes of *Cecropia mocoana* are densely villous-hirsute as in *C. discolor* (in this species they are glabrous or only puberulent inside, contrary to the statement in the original description), whereas in *C. marginalis* they are covered with a very short and obsolete tomentum. Only further abundant collections can indicate whether *Cecropia mocoana* represents a male specimen of one of these earlier species."

COLOMBIA: Comisaría del Putumayo, Mocoa, alrededores al norte, 750–850 m. "Small tree." December 3–7, 1942, *Richard Evans Schultes & C. Earle Smith 2003* (TYPE in Chicago Museum).

Cecropia porvenirensis *Cuatrecasas sp. nov.*

Arbor magna. Ramuli scabri, pilis conicis et longioribus hamatis satis instructi. Folia membranacea vel subcoriacea, peltata. Petiolus 32 cm. longus, juvenilis alboarachnoideus, deinde hirtus, pilis longis tenuibus rigidis patentibus inferne hamatis tantum ramanentibus. Lamina palmata profunde (2/3) 7-vel 6-lobata, lobis obovatis vel obovato-oblongis, basi constrictis, apice abrupte acuminatis, margine integra vel leviter irregulariterque

sinuata, lobo maximo ab insertione petioli usque ad apicem 35 cm. longo, 15 cm. lato, lobo minimo 14 cm. longo, 8 cm. lato, parte centrali concrescenti 7–13 cm.; supra viridis, scabra, pilis conicis minutis satis atque tuberculis acutis et pilis sparsis longis praedita, nervis primariis secundariisque valde conspicuis; subtus alba, nervis principalibus in foliis juvenilibus tomento arachnoideo deciduo deinde sparse hirtis, nervis secundariis prominentibus, adscendentibus, 1–2 cm. distantibus, plusminusve arachnoideis et sparsissime hirtulis vel glabrescentibus, reticulo venularum obsoleto et lamina reliqua tomento arachnoideo albo dense tecta. Stipula in statu juvenili 8 cm. longa, acuta, villoso-hirta, margine utrinque glabra, intus villoso-sericea. Inflorescentiae femineae geminatae. Pedunculus 6–8 cm. longus (fructifer usque ad 17 cm. longus) scabrido-hirtulus, tuberculis minutis atque pilis rigidis fragilibus patentibus rectis et hamatis munitus. Spatha cylindrica, apice longe angustata, acuta, 16 cm. longa, extus sparse puberula et arachnoidea, leviter scabrida, intus pubescenti-arachnoidea. Amenta feminea vulgo 5 vel 6 (4–7), leviter pedicellata, 11 cm. longa, 4 mm. lata, fructifera in sicco usque ad 23 cm. longa, 7–8 mm. crassa. Perigonium minute tuberculatum. Achaena elliptica, 2 mm. longa, 1 mm. lata, laevia. Pedicelli crassi, 3–4 mm. longi, scabri, pilis conicis brevibus et pilis longioribus hamatis instructi.

Concerning the relationship of this new species, Cuatrecasas writes: "*Cecropia porvenirensis* is closely related to *C. marginalis* Cuatr., but it differs by having the upper surface of the leaves very scabridous, the under surface more densely white-arachnoideous with the nerves much less hispid, and the lower part of the petiole with hooked hairs; the amenta are pedicellate, longer and usually five or six, while in *C. marginalis* they appear in groups of four and are sessile. The stipule of *Cecropia porveniren-*

sis is villose inside, whereas in *C. marginalis* it is glabrous."

COLOMBIA: Comisaría del Putumayo, Puerto Porvenir cerca de Puerto Ospina, alt. 250 m. "Large tree. *Yarumo.*" May 20, 1942, *Richard Evans Schultes 3697* (TYPE in Chicago Museum).

LEGUMINOSAE

Inga macrophylla *Humboldt & Bonpland ex Willdenow* Sp. Pl. 4 (1806) 622.

Inga macrophylla, which ranges from Venezuela to Peru and Bolivia, was first reported from Colombia by Uribe (in Caldasia 3, no. 14 (1945) 347), on the basis of material from the Intendencia del Meta. The second and third Colombian collections, cited below, greatly extend the known range of this species in Colombia. In the Colombian Amazonia, this species, cultivated for the edible pulp around the beans, is called *guava machete* or *guamo machete*. In the Tikuna Indian language, it is known as *pa-má*.

COLOMBIA: Comisaría del Amazonas, Río Karaparaná, between El Encanto and the mouth, May 22–28, 1942, *Richard Evans Schultes 3857*.—Comisaría del Amazonas, Leticia. "Bushy shrub. Flowers white. Fruit long. *Guamo machete*. Tikuna: *pa-má*". September 20, 1945, *Richard Evans Schultes 6542*.

Inga setifera *de Candolle* Prodr. 2 (1825) 432, 615.

According to Uribe (in a letter to the writer), *Inga setifera* has not hitherto been reported from Colombia. It is known to be common in the Departamento de Loreto in Peru. In Leticia, the plant is called *chimbillo* by the Spanish-speaking population, *kau-ré* by the Tikuna Indians.

COLOMBIA: Comisaría del Amazonas, Leticia. "Flowers yellow. Pulp of fruit edible. *Chimbillo*. Tikuna: *kau-ré*." September 20, 1945, *Richard Evans Schultes 6543*.

Swartzia bracteosa *Martius ex Bentham* in Martius Fl. Bras. 15, pt. 2 (1870) 20.

A species of the western half of the Amazonia, *Swartzia bracteosa* is now known, through the collection cited below, well within Colombian territory. It is possible that the type was from Colombia, for it was collected by Martius "in sylva Yapurensibus."

COLOMBIA: Intendencia del Amazonas, Río Igaraparaná, los alrededores de La Chorrera, alt. ca. 180 m. "Small tree. Fruit red." June 4–10, 1942, *Richard Evans Schultes 3939*.

VOCHYSIACEAE

Vochysia lomatophylla *Standley* in Field Mus. Publ. Bot. 22 (1940) 150.

Vochysia lomatophylla was described from material collected on the Río Mazán in Loreto, Peru; it has also been known from the Rio Solimões in Brazil (Stafleu in Rec. Trav. Bot. Néerl. 41, bk. 2 (1948) 505). The collections cited below are the first recorded from Colombia and greatly extend the known distribution of the species to the headwaters of the Río Negro basin.

COLOMBIA: Comisaría del Vaupés, Upper Vaupés River, alt. about 300 m. (?) January, 1944, *Gabriel Gutiérrez & Richard Evans Schultes 504*.—Comisaría del Vaupés, Upper Vaupés River, near Miraflores, alt. about 300 m. (?) "Enormous tree on floodland along banks." January, 1944, *Gabriel Gutiérrez & Richard Evans Schultes 701*.

Vochysia obscura *Warming* in Martius Fl. Bras. 13, pt. 2 (1875) 73, t. 13.

Widely distributed in the Amazon basin of Brazil and Peru and in southern Venezuela, this species of savannas and caatinga-forests has not hitherto been reported from Colombia. The collection cited below extends the known range very far to the northwest.

COLOMBIA: Comisaría del Vaupés, Cerro Chiribiquete, January, 1944, *Gabriel Gutiérrez & Richard Evans Schultes 688*.

Vochysia vismiifolia *Spruce ex Warming* in Martius Fl. Bras. 13, pt. 2 (1875) 99.

This species of savannas or open caatinga-like forests is widely distributed throughout the Amazon Valley of Brazil and in southern Venezuela, but has hitherto apparently not been recorded from Colombia.

COLOMBIA: Comisaría del Vaupés, Cerro Chiribiquete, January, 1944, *Gabriel Gutiérrez & Richard Evans Schultes 633*.

EUPHORBIACEAE

Euphorbia penicillata (*Millspaugh*) *R. E. Schultes comb. nov.*

Tithymalus pencillatus Millspaugh in Field Mus. Publ. Bot. 4 (1925) 95.

Although the binomial *Euphorbia penicillata* has been used in several enumerations (Herrera: "Catálogo alfabético de los nombres vulgares y científicos de plantas que existen en el Perú" (1939) 192; Herrera: "Sinopsis de la flora del Cuzco" 1 (1941) 291), it seems that the combination has never properly been made. The specific epithet was originally published as *pencillatus*, an obvious typographical error which was corrected in the index of the volume.

Phyllanthus fluitans *Bentham ex Mueller-Argoviensis* in Linnaea 32 (1863) 36.

Described from Brazil, *Phyllanthus fluitans* has apparently not hitherto been reported from the flora of Colombia.

COLOMBIA: Intendencia del Amazonas, near mouth of Río Loretoyacu, April, 1944, *Frederick J. Hermann 11298*.

PERU: Departamento de Loreto, Río Amazonas, Isla Cacao, April, 1944, *Frederick J. Hermann 11314½*.

Sapindaceae

Serjania dasyclados *Radlkofer* var. **sibundoya** *R. E. Schultes var. nov.*

Frutex scandens, a *Serjania dasyclados* principaliter foliolis subtus densius tomentoso-pilosis, supra dense et sordide adpresso-pilosis et tactu mollibus differt.

This concept would seem to represent either a southern variant of *Serjania dasyclados* or an endemic variety possibly confined to the mountain-encircled Valley of Sibundoy where a large number of endemic plants have been found. It is at once distinguished from *Serjania dasyclados* by having dense and appressed hairs of a dirty brown color on the upper surface of the leaflets. The more northern collections of the Colombian *Serjania dasyclados* (the type and a cotype from Cundinamarca at 700 and 1000 m. respectively; a collection from Caldas at 1800–2100 m.; one from Santander at 2000–2600 m.; one from Norte de Santander at 2000–2500 m.) have no indumentum on the upper surface of the leaflets.

Colombia: Comisaría del Putumayo, Valley of Sibundoy, Sibundoy, alt. about 2225–2300 m. "Vine. Flowers white; fruits ripen red. Hairs on both leaf surfaces." May 29, 1946, *Richard Evans Schultes & Mardoqueo Villarreal 7652* (Type in Herb. Gray).

Bombacaceae

Quararibea putumayensis *Cuatrecasas* in Lloydia 11 (1948) 186.

This collection is topotypical. The species is known only from the Comisaría del Putumayo and adjacent regions of Peru. The Kofán Indians employ the roots of this bush in preparing arrow-poison.

Colombia: Comisaría del Putumayo, Río Putumayo, Puerto Ospina. "Flowers white. Fruit edible. Bush. Kofán: *kun-kun-ni-ai*." March 23–25, 1942, *Richard Evans Schultes 3420*.

Quararibea Schultesii *Cuatrecasas sp. nov.*

Frutex. Ramuli badii, glabri, sublaeves, novelli pallide virides, pilis stellato-pubescentibus vestiti. Folia grandia, membranacea, simplicia, alterna, petiolata, pallide viridia. Petiolus robustus, 1.5–2 cm. longus, teres, dense stellato-tomentosus. Lamina obovata, plusminusve oblonga, basim versus attenuata, basi cuneata, apice subito contracta et cuspidata margine integro; tri-quintuplicinervis, nervis secundariis quattuor, utroque latere duo tertio superiores dispositis ascendentibus prope margine arcuato-anastomosatis reliquis nervis transversis et reticulum formantibus; supra prospectu glabra sed pilis sparsissimis simplicibus munita, nervis principalibus conspicuis, reticulo obsoleto; subtus pilis sparsis simplicibus et stellatis praecipue ad nervos praedita, nervis primariis secundariisque valde eminentibus, reticulo bene eminenti; 18–30 cm. longa, 10–15 cm. lata. Stipulae lanceolatae, 9 mm. longae, 2.5 mm. latae, dense stellato-tomentosae, mox deciduae. Flores solitarii, oppositifolii, pedunculati. Pedunculi mediocres, flexuosi, circa 18 mm. longi, striolati, dense adpresse stellato-tomentosi, apice tres bracteas, late lanceolatas, dense stellato-tomentulosas, circa 1 cm. longas, 2–4.5 mm. latas, basi calycis adnatas ferentes. Calyx tubuloso-conicus; tubus 13 mm. longus, basim versus minute striatus, apice breviter 5-lobulatus, dorso alis quinque membranaceis, apicem versus dilatatis, extremis rotundatis, calycis tubum superantibus instructus, extus tubo alisque stellato-tomentulosis intus adpresse albido-sericeis. Petala 3 cm. longa, supra glabra, subtus villoso-lanata cum pilis stellatis radiis tenuibus longis intricatis, verosimiliter albida; ungui late lineari, glabro, 16 mm. longo; limbo apice exserto, spathulato, 14 mm. longo, 5–6 mm. lato, apice rotundato, reflexo vel patenti. Staminorum columna quam calyx plus duplo longior, glabra, circa 3 cm. longa, ex-

trema in lacinias quinque antheriferas lineares, 4–5 mm. longas producta; laciniis sex antherarum loculis, oblongis, 1–1.2 mm. longis, valde contiguis munitis, et loculis alteris (1–2) parte superiore tubo concrescentibus. Stylus longe villosus, antherarum lobulis parum brevior vel aequilongus. Stigma capitatum, 1.8 mm. crassum.

In connection with the foregoing description, Cuatrecasas states: "*Quararibea Schultesii* belongs to the small group of species which have wings on the calyx. The most similar to it is *Quararibea bracteolosa* (Ducke) Cuatr. but *Q. Schultesii* differs in having longer petioles and pedicels, by its smaller flowers, by the shorter membranaceous calyx of which the wings are more expanded and even more membranaceous, by the herbaceous-membranaceous lanceolate bracts, and by the indumentum of calyx and bracts which is shorter and thinner. *Quararibea bracteolosa*, on the contrary, has bracts which are ovate and coriaceous or subcoriaceous, a calyx tube which is much thicker and dense. I have seen an isotype of *Quararibea bracteolosa* which is preserved at the Chicago Museum of Natural History. Probably *Ducke 1781* and *1782* (fruiting specimens), distributed as *Quararibea bracteolosa*, do not belong to that species."

COLOMBIA: Comisaría del Amazonas, Trapecio amazónico, Loretoyacu River, alt. about 100 m. "Bush." October 20–30, 1945, *Richard Evans Schultes 6669A* (TYPE in Chicago Museum).

OCHNACEAE

Rhytidanthera magnifica (*Gleason*) *Dwyer* in Lloydia 9 (1946) 53, t. 2, a–g.

In his monographic treatment of *Rhytidanthera* and related genera, Dwyer (loc. cit.) reported but one collection of *R. magnifica*, the type, *Lawrance 599*, from the El Umbó region, Departamento de Boyacá.

Cuatrecasas 13370 extends the known range of *Rhyti-*

danthera magnifica into the Departamento Norte de Santander and very near to the Venezuelan boundary. Although the type was described as a tree up to 65 feet tall, the species may also be, as reported by Cuatrecasas, a small tree ("arbolito"). Dwyer states that *Rhytidanthera magnifica* "is readily distinguished from the two other species. . . . by its narrower leaflets which taper toward the base. . . .", but the leaflets of *Cuatrecasas 13370*, while very narrow, are broadly rotund at the base.

COLOMBIA: Departamento Norte de Santander, región del Sarare, hoya del río Marque entre Junín y Córdoba, 920–1240 m. alt. "Arbolito. Pétalos blancos. Estambres amarillos." November 22, 1941, *J. Cuatrecasas 13370.*

Rhytidanthera mellifera *R. E. Schultes sp. nov.*

Arbor parva, usque ad quindecim pedes alta, ramosissima. Truncus tres ad quattuor pollices in diametro, rufobrunneo cum cortice ruguloso et minute lenticellato. Folia imparipinnata, aliquid pendula; petioli 16.5–24.5 cm. longi; foliola duodecim vel plerumque tredecim (cum petiolulis 1–2 mm. longis), lateralia alterna, 2.2–2.5 cm. distantia, anguste lanceolata, apice acuta, basi rotundata, 8.5–14 (plerumque 10.5) cm. longa, 2.2–3.2 (plerumque 2.5) cm. lata; foliolum terminale liberum, cuneato-lanceolatum, apice obtusum, 10–12 cm. longum, usque ad 4 cm. latum; alia marginem versus valde retrocurvata, margine grossiuscule serrata, dentibus apice incurvis et plerumque 6 mm. distantibus, supra nitida venis non elevatis, subtus pallidiora, venis prominenter elevatis, secundariis plusminusve viginti; stipulis caducis. Inflorescentiae terminales, parvae, quam folia multo breviores, 20 cm. longae, rhachide 3 mm. in diametro, pauciflorae (floribus usque ad viginti); rhachidis rami usque ad 8 cm. longi; pedicelli ad rhachidem articulati, robustiores et lignosi, usque ad 10 mm. longi, apice subclavati, basi 1 mm. et apice 2 mm. in diametro. Flores

solitarii, aromatico-fragrantes, mucilaginosi, alabastris 16 mm. longis, 7–8 mm. latis. Sepala quinque, imbricata, concava; duo exteriora subcoriacea sed marginem versus membranacea, rotundata, margine irregulariter lacerata, apice profunde retusa, supra minute pulverulento-striolata (non strigillosa), 7 mm. longa, 7 mm. lata, basi cum plusminusve quindecim glandulis minutis digitaliformibus, usque ad 1 mm. longis, 0.25 mm. in diametro; interiora majora, membranacea vel apicem versus aliquid papyracea, oblonga, apice profundissime fissa, margine integra (vel sepalo extimo minute lacerato), 13 mm. longa, 7 mm. lata. Petala quinque, alba, membranacea, leviter inaequalia, oblongo-spathulata, apice saepe obliqua (alabastrum aliquid subcuculliforme), margine integra, 17 mm. longa, 7 mm. lata. Stamina sexaginta quattuor, brunneo-flava, subaequalia, usque ad 12 mm. longa. Antherae 10 mm. longae, 0.8 mm. latae, longitudinaliter rugulosae, filamentis 2 mm. longis, basi 0.6 mm. latis. Ovarium crassum, nigrum, inverse claviforme, apicem versus in stylum indeterminatum, apparenter erectum, luteum, paulatim angustans, 13 mm. longum, 2.5 mm. in diametro, quinque cum stigmatibus sessilibus. Capsulae immaturae solum visae, usque ad 2 cm. longae, 2.5–3 cm. latae, praecipue apicem versus anguste subfalcatae.

Rhytidanthera, closely allied to *Godoya*, is the only compound-leaved genus of the *Ochnaceae*. Hitherto, there have been but three species known: *Rhytidanthera magnifica*, *R. splendida* and *R. sulcata*. The genus is endemic to Colombia.

Rhytidanthera mellifera represents the first collection of the genus from the Amazon Valley, the other species being Andean in their distribution. This is an excellent example of the curious type of plant distribution and relationship of the plants on the arc which forms the so-called Venezuelan-Guianan land-mass. Of this distribu-

tion, Dr. Lyman B. Smith (in Contrib. Gray Herb. no. 161 (1946) 31) has said: "... . movement on the arc was from the Andean region eastward. Finally most of the species [i.e. of certain bromeliads and cyperaceous plants he was discussing] are narrow endemics, indicating that the movement was relatively ancient."

Rhytidanthera mellifera is an endemic of the cretaceous, quartzite hills of the upper Apaporis basin. We might well expect *Rhytidanthera* to occur in collections from other sandstone mountains in eastern Colombia and southern Venezuela, but even now we may venture to say that it is not a common element of the flora of these repositories of endemics. On the Cerro Castillo, *Rhytidanthera mellifera* is extremely rare. Special search for more abundant flowering material failed to furnish additional individuals, so the species is at present known only from one bush. This bush, growing on the edge of a rock-ledge covered with a scrubby vegetation, was visible to us far below as we were climbing the face of the mountain. Like the other species of the genus, it makes an unusual display with the large, white caesalpinaceous-like flowers. *Rhytidanthera* was not seen on the nearby mountains, Chiribiquete and Campana.

Rhytidanthera mellifera, so named because of the sweet and mucilaginous exudation of the flower which attracts swarms of wild bees to the plant, is immediately set apart from the other known species by having 64 stamens, a much larger number than has hitherto been found in the genus.

The closest ally of *Rhytidanthera mellifera* would appear to be *R. magnifica* (Gleason) Dwyer, from which it differs in having twelve or thirteen alternate (instead of nine or ten opposite) leaflets; a very broadly cuneate-lanceolate, obtuse (instead of a narrowly lanceolate-elliptic, acute) terminal leaflet; much smaller lateral

leaflets; minutely lacerate (instead of entire) sepals; smaller outer and larger inner sepals; and generally smaller petals which, in the bud, are subcucullate at the apex. There are also minor floral and vegetative differences which more abundant material may show to be of importance.

COLOMBIA: Comisaría del Caquetá, Apaporis River, Cerro Castillo (below confluence of Ajaju and Macaya), quartzite base, alt. of collections 350–1000 feet above the forest floor, 1250–1900 feet above sea-level. "Flowers white, centres yellow-brown, aromatic fragrant. Treelet 15 feet. On exposed rock. Much branched. Basal diameter 3–4 inches. Leaflets very coriaceous, marginally inrolled." July 27, 1943, *Richard Evans Schultes 5657* (TYPE in U.S. Nat. Herb.).

Sauvagesia erecta *Linnaeus* Sp. Pl. (1753) 203.

Sauvagesia erecta, the most widespread species of the genus, is rather variable and presents several general geographical variants. It has been collected in Colombia in the Departamentos de Norte de Santander, Huila, Tolima and Cauca (Dwyer in Bull. Torr. Bot. Club 72 (1945) 530). The collection cited below is apparently the first from the entire Amazon basin of Colombia. There are numerous collections from the adjacent Amazonian regions of Brazil and Peru.

COLOMBIA: Comisaría del Amazonas, Río Igaraparaná, near La Chorrera, alt. about 180 meters. "Small shrub under 8 inches tall. Flowers pinkish." June 4–10, 1942, *Richard Evans Schultes 3955*.

FLACOURTIACEAE

Lindakeria nitida *Killip & R. E. Schultes sp. nov.*

Arbuscula usque ad viginti quinque pedes alta, ramosissima, ramis longis laxisque. Folia ovata, basi cuneato-obtusa, apice attenuato-acuminata, integerrima, 10.5–14 cm. longa, 4.5–5.5 cm. lata, supra nitidissima, vivo apparenter atroviridia cum venis non conspicuis, subtus aliquid pallidiora cum venis prominentibus, utrinque glaberrima, nervis secundariis plusminusve quinque. Pet-

ioli 2.5–3.5 cm. longi, teretiusculi, ad laminam incrassati. Racemi axillares, apparenter erecti et stricti; rhachides usque ad 10 cm. longae, folia subaequantes, compresso-angulatae. Pedicelli distichi, 6–7 mm. longi, solitarii vel saepe duo vel tres. Flores 10 mm. in diametro vel minores, alabastro globoso. Sepala tria, triangularia, apice subacuta, margine valde involuta, 4.5 mm. longa, basi 4 mm. lata, extus apparenter minute aspero-pustulata et basi pilosa. Petala sex, alba, membranacea, lanceolata, apice acuta, 7 mm. longa, 1.8 mm. lata, extus rarenter dense albido-leprosa. Stamina plusminusve quadraginta, 4–5 mm. longa; filamenta libera, laxa, aliquid complanato-filiformia, 2 mm. longa; antherae lineares, 2.5–3 mm. longae. Ovarium ovoideum, echinato-tuberculatum, 2 mm. in diametro. Stylus ovario circiter duplo longior, 3.5–3.8 mm. longus, complanato-filiformis, glaber, stigmate minute trilobo. Fructus adhuc ignotus.

Lindakeria nitida is at once distinguished from all other species of the genus by its very long and lax inflorescence which gives the plant a completely unique aspect. This species, growing in the Magdalena watershed of Colombia, is perhaps most closely allied to the rather widespread Amazonian *Lindakeria maynensis*. In addition to the length of its inflorescence and its highly lustrous leaves, *Lindakeria nitida* differs from *L. maynensis* in the shape and size of the sepals and slightly in the structure of the stamens.

The collection *Haught 1917* has, in general, much larger leaves and flowers than the type. The leaves of this cotype are lanceolate-ovate, up to 26 cm. long and 8 cm. wide; the petioles measure up to 7 cm. in length, and the rachis is 16 cm. long. Additional collections will be needed before we can determine whether the type represents the normal condition of the species, but it would appear from an examination of the available ma-

terial that *Haught 1917* was taken from an individual in an open, favorable site or else from a new flush.

COLOMBIA: Departamento El Magdalena, 17 km. north of El Banco on road to Chimichagua. "Large (5 m. high) shrub with many long, lax branches. Inflorescence very conspicuous. Corolla white, anthers yellow. In swampy forest, along road." August 3, 1938, *Oscar Haught 2221* (TYPE in U.S. Nat. Herb. No. 1706900).—Departamento de Santander, El Centro, vicinity of Barranca-Bermeja, Magdalena Valley, between Sogamoso and Carare Rivers, alt. 100–500 meters. "Large shrub (4 m.) very conspicuous white flowers and buds." August 26, 1936, *Oscar Haught 1917*.

Mayna glomerata *Killip & R. E. Schultes sp. nov.*

Arbor parva, usque ad duodecim pedes alta. Rami ramulique verrucoso-striati, griselli; ramuli juveniles cinereo-virides, squamiferi. Folia alterna, simplicia, lanceolato-elliptica, usque ad 22 cm. longa (sine petiolo), 7–7.5 cm. lata, integra, apice longe acuminata, basi cuneata, chartacea, nervis secundariis valde arcuatis duodecim vel tredecim, omnino glabra, supra atroviridia et apparenter nitida cum nervis leviter prominentibus sed non elevatis, infra pallide viridia, non nitida, nervis valde elevatis et fulvis. Petioli robusti, usque ad 3 cm. longi, 1.5–1.8 mm. in diametro, glabri. Stipulae non visae. Dioecia. Flores in fasciculis caulinis, glomeratis, inflorescentiis usque ad plusminusve decemfloris. Alabastra globosa vel elongato-globosa, plusminusve 2 mm. in diametro, minute et subdense pilosa. Bracteae minutae. Pedunculus usque ad 3 mm. longus, dense albo-pilosus. Flores staminiferi albi, conspicui, usque ad 2 cm. in diametro. Sepala tria, leviter inaequalia, valde concava, ovata, integra, apice subacuta, extus pubescentia, intus glabra, quinque cum venis brunneis longitudinaliter striata, sepalum majus 3.8–4 mm. longum, 2.7–2.9 mm. latum. Petala quinque ad septem, aequalia, subspathulata, margine irregularia, apice late rotundata et valde involuta, alba, membranacea, usque ad 6.5 mm. longa, apice

circiter 2 mm. lata, basi 0.4 mm. lata, omnino glabra. Stamina circiter vigintiquinque, 2.6 mm. longa, filamentis liberis, erectis, plerumque 0.8 mm. longis, et antheris leviter arcuatis, 1.8 mm. longis, 0.5 mm. latis, flavis, apice poricidis. Fructus adhuc ignotus.

Mayna glomerata is easily distinguished from the other species of this genus by its unusual inflorescences which are in small, closely packed, glomerate fascicles. There are other notable differences, as well, such as the curious folding of the upper third of the petals, the shape of the petals, and the number of the stamens.

Colombia: Departamento de Santander, vicinity of Barranca Bermeja, Magdalena Valley, between Sogamoso and Carare Rivers, Viscania Creek, 32 km. south of El Centro, at about 100 meters alt. "Small tree, about 4 m. high. Flowers white with yellow centres, showy, closely covering twigs." November 14, 1936, *Oscar Haught 2070* (Type in U.S. Nat. Herb. No. 1742337).

Mayna longifolia *Poeppig & Endlicher* Nov. Gen. ac Sp. 3 (1845) 64, t. 271.

Mayna longifolia is extremely abundant in the forests of the southern half of the *trapecio* in areas above flood-level. The collection *Llewelyn Williams 2711* from La Victoria (now "Granja Caldas") near Leticia, cited as from Peru in Macbride's "Flora of Peru" (Field Mus. Publ. Bot. 13, pt. 4, (1941) 18), but actually from Colombian territory, is referable to *Mayna longifolia.*

Colombia: Comisaría del Amazonas, Trapecio amazónico, Loretoyacu River, alt. about 100 m. "Treelet 25 feet." October 1945, *Richard Evans Schultes 6700.*—Comisaría del Amazonas, same locality and date. "Tall treelet. Leaf larger than normal." *Richard Evans Schultes 6701.*—Comisaría del Amazonas, same locality and date. "Leaves very narrow. Fruit on trunk up to top." *Richard Evans Schultes 6705.*

Combretaceae

Combretum laxum *Jacquin* Enum. Pl. Carib. 19 (1760) 115.

Combretum laxum appears to be an aggregate species in which several clearly distinct "tendencies" can be seen. As now understood in this broad sense, the species occurs all over tropical America. Several collections from the Departamento de Loreto, Peru, represent the same variant as *Schultes 3924* from adjacent Colombia. When further material is studied, this variant can probably be shown to be specifically distinct from true *Combretum laxum.*

In the Igaraparaná, the Witoto Indian name of *Combretum laxum* is *ajuo-wo.* In another Witoto dialect from Loreto, Peru, the native name has been recorded as *aioho-ayo-o* (in Field Mus. Publ. Bot. 13, pt. 4 (1941) 225).

This attractive vine often covers riverside vegetation and, especially at night, gives off an extraordinarily strong and sweet perfume.

COLOMBIA: Comisaría del Amazonas, Río Igaraparaná, alrededores de La Chorrera. "Vine. Flowers yellow, fragrant." June 4–10, 1942, *Richard Evans Schultes 3924.*

MELASTOMACEAE

Aciotis aequatorialis *Cogniaux* in Martius Fl. Bras. 14, pt. 3 (1885) 464.

Known from the Pacific coast of Colombia, from Antioquia and from the Intendencia del Meta, *Aciotis aequatorialis* has hitherto apparently not been reported as an element of the flora of Amazonian Colombia. *Aciotis polystachys* (Bonpl.) Tr. and *A. purpurascens* (Aubl.) Tr. have been collected in Colombia only a few kilometers from the locality of the specimen of *A. aequatorialis* cited below.

COLOMBIA: Intendencia del Amazonas, Río Hamacayacu, April, 1944, *Frederick J. Hermann 11303.*

Leandra divaricata (*Naud.*) *Cogniaux* in Martius Fl. Bras. 14, pt. 4 (1886) 196.

Not infrequent in British Guiana, Venezuela, Amazonian Peru and elsewhere in Colombia, *Leandra divaricata* has been collected hitherto on the Amazonian watershed of Colombia but twice: at Puerto Porvenir, on the upper reaches of the Río Putumayo (*Cuatrecasas 10666*), and at Mocoa (*Cuatrecasas 11316*). *Hermann 11308*, from the southeasternmost point of the Colombian Amazonia, would seem to indicate a wide distribution for this species in eastern Colombia.

COLOMBIA: Intendencia del Amazonas, Río Hamacayacu, April, 1944, *Frederick J. Hermann 11308*.

LOGANIACEAE

Strychnos amazonica *Krukoff* in Brittonia 4 (1942) 284.

This collection, determined with some reservation as representing *Strychnos amazonica*, is the first of the species from Colombia. Krukoff and Monachino (in Caldasia 4 (1946) 45) enumerated *Strychnos amazonica* as a species to be expected in the Colombian Amazonia. It is one of the plants the root of which is used by the Kofán Indians in preparing arrow-poison.

COLOMBIA: Comisaría del Putumayo, Río Putumayo, Puerto Ospina. "Vine. Root used in Kofán Indian arrow-poison. Kofán name: *hess-pá-chu*." April 25, 1942, *Richard Evans Schultes 3689*.

Strychnos Erichsonii *Richard Schomburgk* Faun. Fl. Br. Guiana (1848) 1082, *nomen:* ex Progel in Martius Fl. Bras. 6, pt. 1 (1868) 274.

First reported from Colombia on the basis of a collection from the Río Sucumbíos (in Bot. Mus. Leafl. Harvard Univ. 13 (1949) 290), *Strychnos Erichsonii* is apparently one of the most abundant species of this genus in the upper Putumayo basin where it is sought by the Kofán Indians for use in preparing *curare*.

COLOMBIA: Comisaría del Putumayo, Río Putumayo, Puerto Ospina. "Vine. Bark of stem rasped and used for arrow-poison. Kofán name: *ee-ru-che.*" April 25, 1942, *Richard Evans Schultes 3682.*—Same locality and date. "Vine. Root used in arrow-poison. Kofán name: *see-a-se-sep.*" *Richard Evans Schultes 3682.*—Same locality and date. "Vine. Pieces of stem used in preparing Kofán arrow-poison. Kofán name: *mun-tai-rú-chee.*" *Richard Evans Schultes 3685.*

Strychnos guianensis (*Aubl.*) *Martius* Syst. Mat. Med. Bras. (1843) 121.

Known from Colombia previously from one collection made in the Río Vaupés, *Strychnos guianensis* is now registered from the southwesternmost point of the Amazon basin of Colombia where it serves the Kofán Indians as one of the lesser ingredients in arrow-poisons.

COLOMBIA: Comisaría del Putumayo, Río Putumayo, Puerto Ospina. "Vine. Root used in preparing *curare.* Kofán name: *ku-see-ye-hé-pa.*" April 25, 1942, *Richard Evans Schultes 3688.*

Strychnos javariensis *Krukoff* in Brittonia 4 (1942) 279.

The following collections are apparently the first to be recorded from Colombia. The species is one of the lesser ingredients of Kofán *curare.*

COLOMBIA: Comisaría del Putumayo, Río Putumayo, Puerto Ospina. "Vine. Root used in arrow-poison. Kofán name: *tzu-se-hé-pa.*" April 25, 1942, *Richard Evans Schultes 3690.*—Same locality and date. "Vine. Root used in Kofán arrow-poison." *Richard Evans Schultes 3691.*

Strychnos Jobertiana *Baillon* in Adansonia 12 (1879) 367.

Although previously reported from two localities in the Colombian Amazonia, *Strychnos Jobertiana* is now known to be very abundant in the upper Putumayo basin and to be one of the preferred ingredients of *curare* amongst the Kofán Indians.

COLOMBIA: Comisaría del Putumayo, Río Putumayo, Puerto Ospina. "Vine. Stem employed as ingredient in arrow-poison. Kofán name: *u-su-se-é-pa.*" April 25, 1942, *Richard Evans Schultes 3692.*—Same locality and date. "Vine. Root used to make arrow-poison. Kofán name: *fee-see-pá-chu.*" *Richard Evans Schultes 3695.*

Strychnos Peckii *B. L. Robinson* in Proc. Am. Acad. 49 (1913) 504.

This is the second collection of *Strychnos Peckii* from Colombian Amazonia. It is one of the preferred species amongst the Kofán Indians for preparing arrow-poison.

COLOMBIA: Comisaría del Putumayo, Río Putumayo, Puerto Ospina. "Vine. Root used in arrow-poison. Kofán name: *su-he-sé-pa.*" April 25, 1942, *Richard Evans Schultes 3684.*

Strychnos subcordata *Spruce ex Bentham* in Journ. Linn. Soc. 1 (1856) 106.

This species has never been reported from Colombia. It is considered one of the strongest of the *curare* ingredients by the Kofán Indians.

COLOMBIA: Comisaría del Putumayo, Río Putumayo, Puerto Ospina. "Vine. Root used in arrow-poison formula. Kofán name: *su-sé-pe.*" April 25, 1942, *Richard Evans Schultes 3687.*

APOCYNACEAE

Himatanthus articulata (*Vahl*) *Woodson* in Ann. Missouri Bot. Gard. 25 (1937) 196.

The collection cited below is apparently the second from Colombia, the first being *Cuatrecasas 9001* from Florencia, capital of the Comisaría del Caquetá. The species is rather widespread in the Guianas, Amazonian Brazil, the Orinoco drainage-area of Venezuela and in Middle America.

COLOMBIA: Comisaría del Vaupés, Cerro Chiribiquete. "Flowers white." January, 1944, *Richard Evans Schultes 5735.*

Himatanthus bracteata (*A.DC.*) *Woodson* in Ann. Missouri Bot. Gard. 25 (1937) 200.

Known from British Guiana and several stations in the Amazon of Brazil (where it is apparently most abundant in the Rio Negro basin) as well as from Pernambuco and Bahía, *Himatanthus bracteata* has hitherto not been reported from Colombia. *Schultes 5814*, tentatively determined as representing this species, has, according to Woodson, leaves which "are larger than usual." In the Vaupés, the plant is known as *platanote*, due to the superficial resemblance of the fruit to the banana.

COLOMBIA: Comisaría del Vaupés, Cerro Chiribiquete. "Flowers white." January, 1944, *Richard Evans Schultes 5738*.—Comisaría del Vaupés, Río Vaupés, Caño Pacú (below Cerro Circasia). "Small tree up to 15 feet tall. Latex abundant, white. *Platanote*." March 6, 1944, *Richard Evans Schultes 5814*.

Mandevilla nerioides *Woodson* in Ann. Missouri Bot. Gard. 28 (1941) 274.

Mandevilla nerioides is known only from the Intendencia del Meta and the Comisaría del Vaupés in Colombia. The type collection was made on the Guaviare River at San José del Guaviare by Cuatrecasas. The following collections establish the occurrence of this endemic species on the summit of the remnant quartzite hills of the upper Apaporis River which have, in common with the hills at San José del Guaviare, a number of striking endemic elements.

COLOMBIA: Comisaría del Vaupés, Cerro Chiribiquete. "Vine. Flowers pink. Latex white, sticky." May 15–16, 1943, *Richard Evans Schultes 5442*.—Same locality. "Vine. Flowers pinkish white. Latex white." January, 1944, *Richard Evans Schultes 5740*.

SOLANACEAE

Solanum quitoense *Lamarck* Illustr. 2 (1793) 16.

Although the *lulo*, the fruit of this species, is known

in many parts of southern Colombia and has been the subject of several recent articles (Chalons in Agric. Amer. 4 (1944) 110–112; McCann, ibid. 7 (1947) 146–149; Hodge in Rev. Fac. Nac. Agron. 7 (1947) 147–154; Hodge in Journ. N.Y. Bot. Gard. 48 (1947) 155–159), there are apparently no Colombian collections of *Solanum quitoense* in the larger herbaria of Colombia and the United States.

The lulo is used as a fruit and is cultivated in much of Andean Colombia (Hodge, loc. cit.), especially in the southern part of the country—in El Valle, Cauca and Nariño (Pérez-Arbelaez, "Plantas medicinales y venenosas de Colombia" (1937) 246; "Plantas útiles de Colombia" (1947) 451), where it is known also as *naranjillo* and *toronja.* Lacking specimens or a critical taxonomic study of the lulo from the numerous areas of Colombia, we cannot be certain that only one species is involved.

Solanum quitoense, as represented in our herbaria, is rather common in the Andean highlands of Ecuador and Peru. The collections *Schultes & Villarreal 7616* and *Schultes 3271* from the southernmost Andes of Colombia not far from the boundary of Ecuador are taxonomically indistinguishable from the material from Ecuador and Peru. It is obvious that an extensive taxonomic study of the lulo in Colombia is needed. Certainly the possibilities of this delicious fruit would indicate the advisability of such an investigation.

COLOMBIA: Comisaría del Putumayo, Valley of Sibundoy, Sibundoy, alt. about 2225–2300 m. "Large shrub. Stem and under surface of leaf purplish, hairy. Flowers white, anthers yellow. Fruit orange colored and size of oranges. *Naranjillo.* Kamsá Indian name: *ma-sha-kve.*" May 29, 1946, *Richard Evans Schultes & Mardoqueo Villarreal 7616.*—Same locality, February 16, 1942, *Richard Evans Schultes 3271.*—Departamento de Antioquia, Río Negro, "La Granja." Cultivated, November 2, 1946, *W. H. Hodge 6712.*

RUBIACEAE

Rondeletia rupicola *R. Schumann* var. **chiribiquetana** *R. E. Schultes var. nov.*

Frutex a *Rondeletia rupicola* stipulis foliaceis multo minoribus; foliis elliptico-lanceolatis (non longe lanceolatis), minoribus, 4–5 cm. longis, 1–1.3 cm. latis (non 5–8 cm. longis, 1.5 cm. latis), acutis (non acutissimis, mucronatis), supra prominentius bullatis, prope nervos majores densius sericeo-strigillosis, subtus prope nervos atque in lamina ipsa maxime densissime sericeo-strigillosis; corollae laciniis majoribus, extus densius strigillosis; antheris majoribus; fornicibus papillosis majoribus densissime hirsutis differt. Capsula globosa, coriacea, 2 mm. in diametro, in fructu calycis laciniis usque ad 1.5 mm. longis densissime strigillosis coronata, fusco-brunnea; semina numerosissima, minuta, angulata.

A study of the original description of *Rondeletia rupicola* and an examination of a duplicate type (*Spruce 3392*) preserved at the Gray Herbarium and a photograph of the Spruce specimen at Berlin indicate that there are a number of minor variations which serve to separate the new variety described above. The capsule of *Rondeletia rupicola* is unknown, but the type of var. *chiribiquetana* has both flowers and fruit. The color of the flowers of *Rondeletia rupicola* is not designated; that of var. *chiribiquetana* is pink.

COLOMBIA: Comisaría del Vaupés, Macaya-Ajaju River confluence, Mount Chiribiquete, quartzite base, summit 800–1200 feet above forest floor, 1700–2100 feet above sea level. "Flowers rose-pink. Leaves dark green above, pale below. Hair silvery. Shrub." May 15–16, 1943, *Richard Evans Schultes 5448* (TYPE in Herb. Gray).

COMPOSITAE

Clibadium asperum (*Aubl.*) *de Candolle* Prodr. 5 (1836) 506.

This species of *Clibadium* is abundantly cultivated in the vicinity of La Pedrera and in the Río Miritiparaná for use as a fish-poison. It is known locally as *guaco* by the Spanish-speaking inhabitants and as *kú-na-pe* by the Miraña Indians. Several other species of *Clibadium* are widely cultivated in the Amazon regions as fish-poisons.

COLOMBIA: Comisaría del Caquetá, Río Caquetá, vicinity of La Pedrera, April, 1944, *Richard Evans Schultes 5879.*

Gongylolepis maroana *Badillo* in Bot. Soc. Venez. Ciénc. Nat. 8 (1943) 237.

Recently, two stations for this species were reported for Colombia, both in the Comisaría del Vaupés (in Bot. Mus. Leafl. Harvard Univ. 13 (1949) 310). The collection cited below is the third from Colombia and extends the known range of the plant to the west on the same interrupted sandstone hills on which previously reported collections were made.

COLOMBIA: Comisaría del Vaupés, Ajaju River, Cerro de La Campana, quartzite base, summit about 800–1200 feet above forest floor, 1700–2100 feet above sea-level. "Composite shrub. Common on top of mountain," June 1–6, 1943, *Richard Evans Schultes 5568.*